Commonwealth of Virginia's Communications Interoperability

The Commonwealth's Link to Interoperable Communications (COMLINC)

Panelists

- Captain Michael Bolton, Virginia State Police
- Chris Essid, Commonwealth Interoperability Coordinator
- Steve Marzolf, Virginia Information Technologies Agency

Agenda

- Background & History
- What is COMLINC?
- Current Projects
- Costs
- Overcoming Challenges
- Questions

Background

STARS

STATEWIDE AGENCIES RADIO SYSTEM

- *July 2004* – Design, construction and implementation of STARS begins through a contract with Motorola

Background

- STARS is a Project 25 multi-channel trunked digital voice and data wireless communications system that is specifically designed for public safety requirements
- The existing state police microwave radio network's technology and capacity will be upgraded and disaster recovery alternate paths will be added
- The STARS contract will provide essential public safety grade communications that can operate seamlessly throughout the Commonwealth for 21 state agencies and facilitate interoperability with local and federal government agencies
- Completion anticipated for June 2008

Background

- STARS program manager was asked to ensure locals can interface with the system
  - RF Patches were in original contract
  - Movement is now towards gateway Voice over Internet Protocol (VoIP) solutions
- The Commonwealth's Link to Interoperable Communications (COMLINC) is born

What is COMLINC?

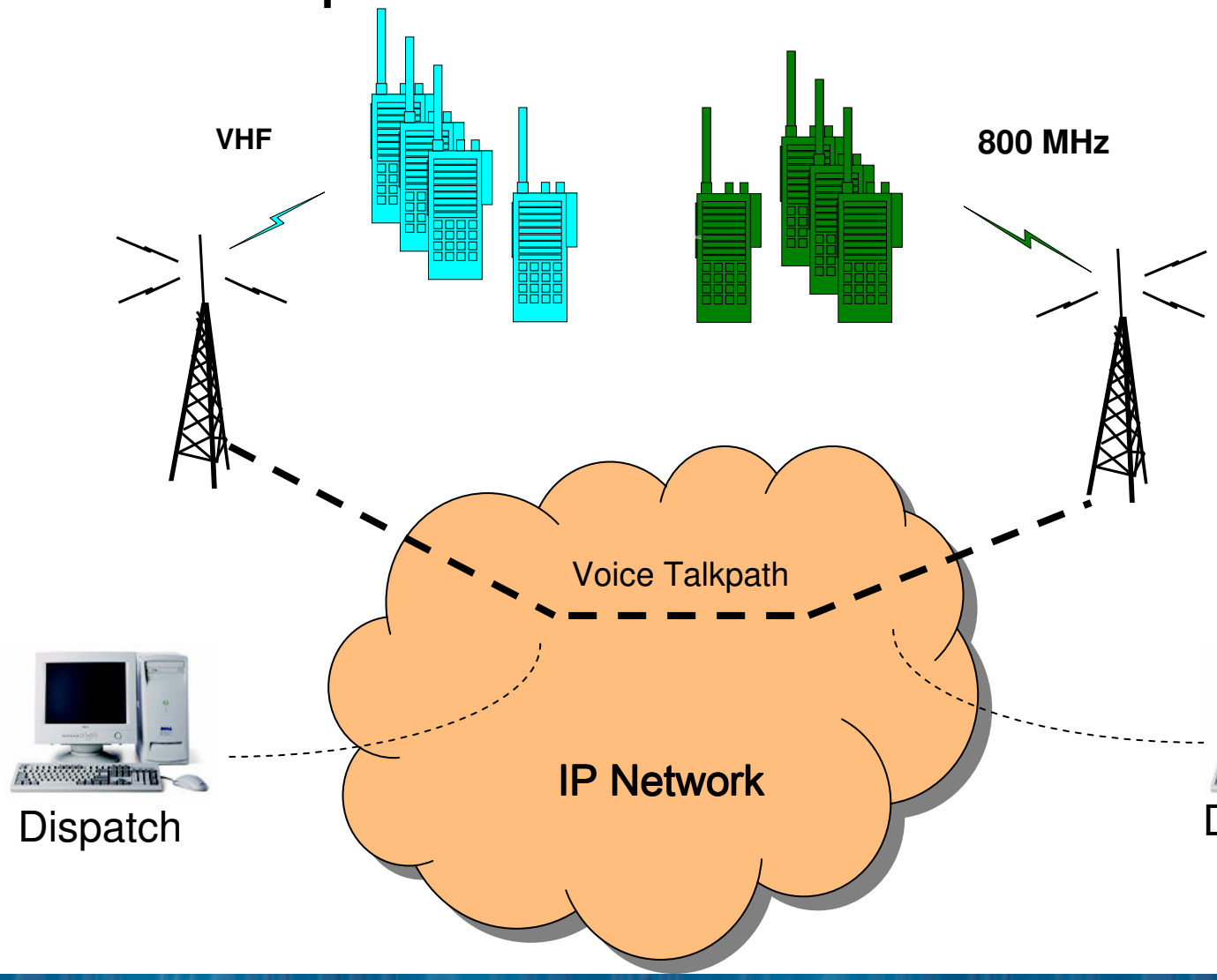
- Technical approach to establish voice communications between disparate land mobile radio systems
- Opportunity to maintain current systems while establishing interoperability
- Supports the ability for various agencies to communicate via a distributed IP network statewide, regionally, and locally

What is COMLINC?

- Allows dispatchers within localities to establish patches to connect disparate radio systems
- Autonomous control of patches by local dispatchers
- Patches to STARS, regionally, adjoining jurisdictions, and within jurisdictions

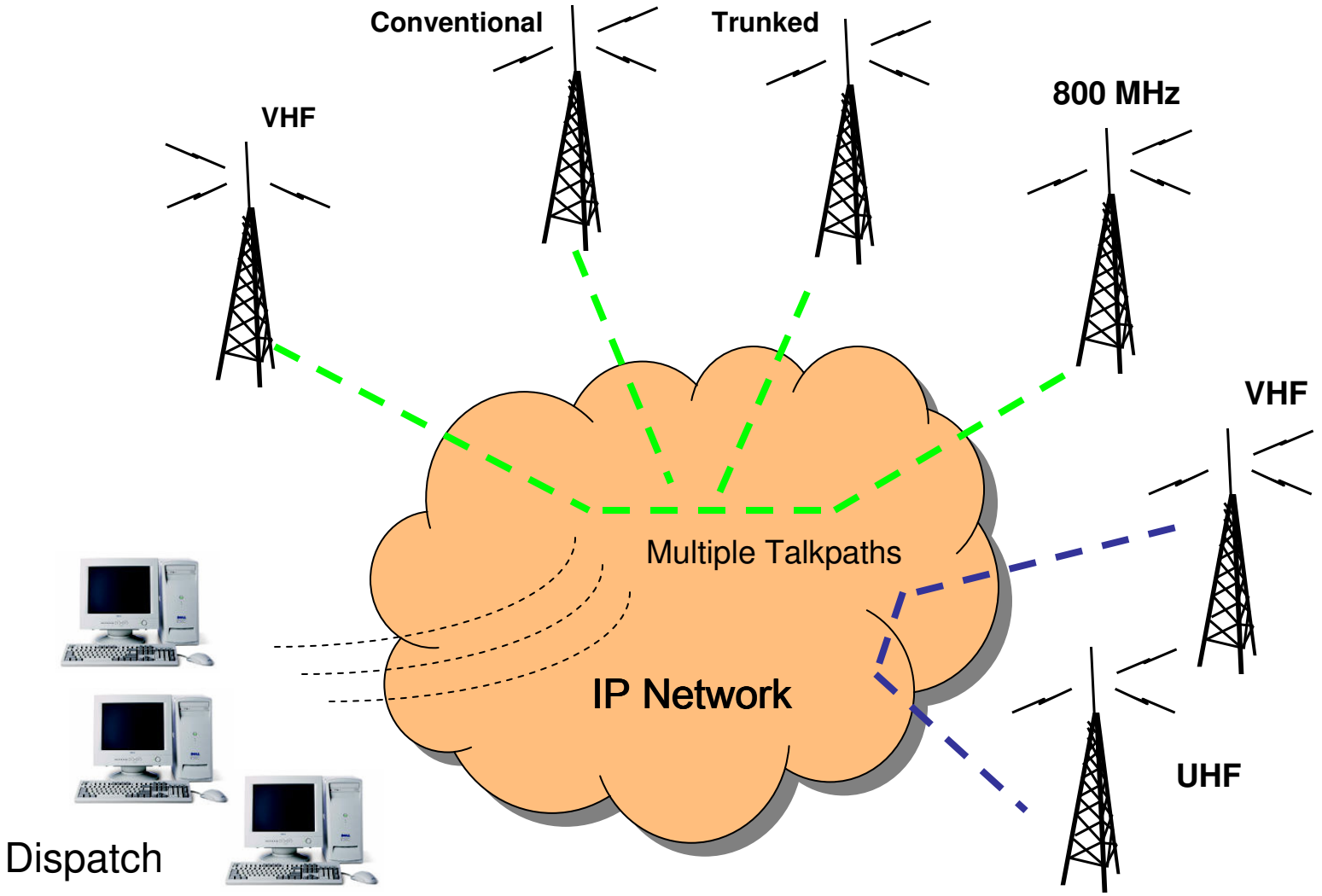
COMLINC: IP Based Gateway Solution

Voice Talkpaths are established across an IP Network

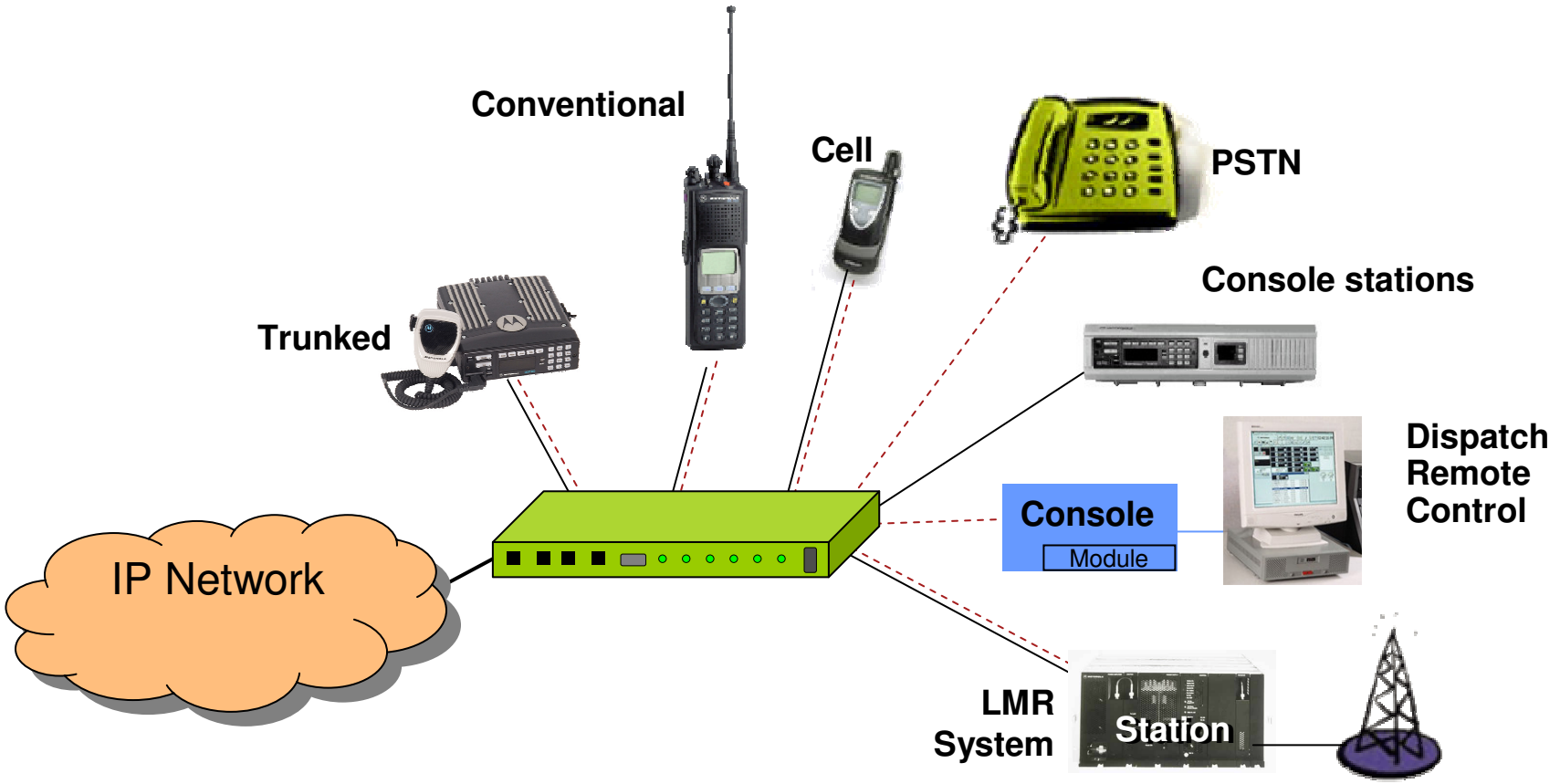


COMLINC: Flexible & Scalable

Supports the establishment of multiple voice talkpaths



COMLINC: Support Multiple Technologies



Benefits

To Localities:

- Eliminates need to swap radios
- Allows for continued use of current systems
- Allows an interface to STARS
- Enables multi-jurisdiction and multi-discipline communications
- Eliminates the need for phone communications to establish patches

To STARS Users:

- Reduces need for multiple radios to talk with local responders
- Allows for communication directly with local agency dispatchers

Users

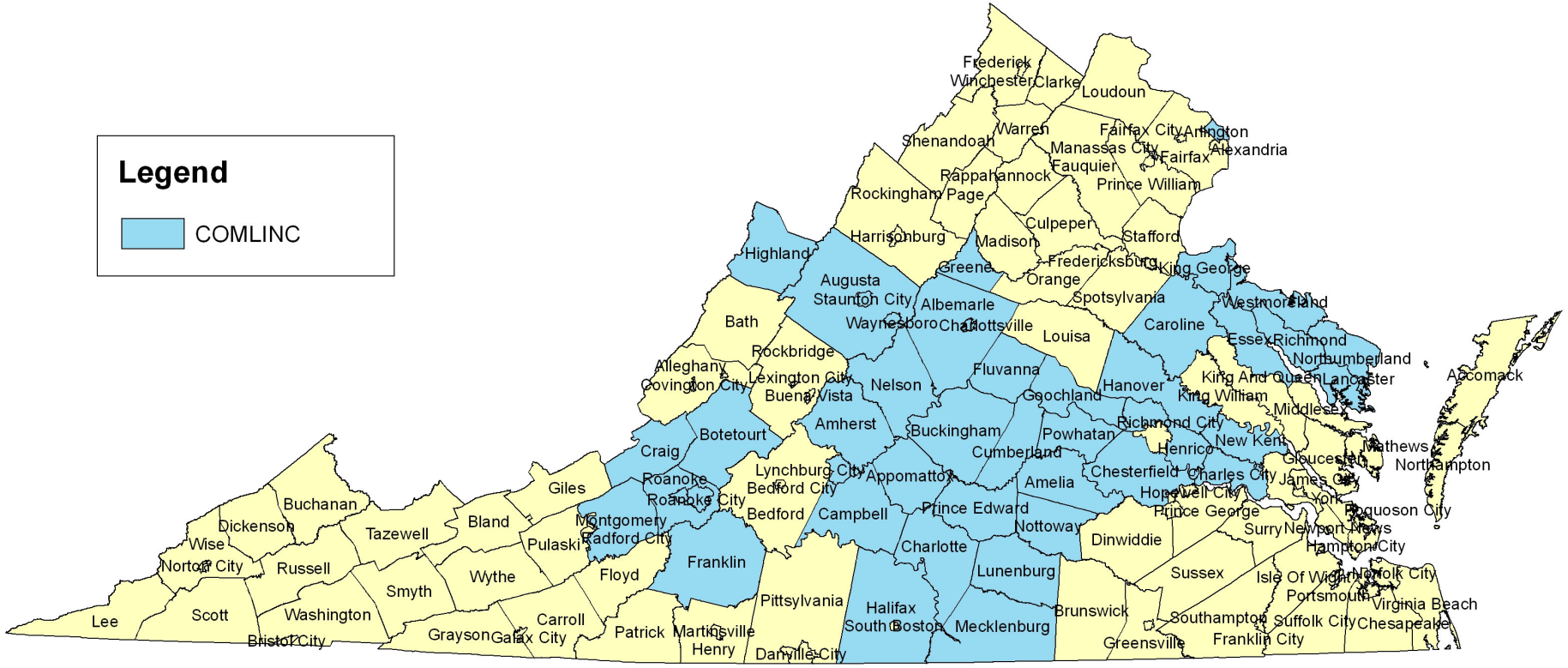
- Does your region require more effective coordination of communications?
- Would you like to use one radio to talk across disciplines and jurisdictions?
- Do you need to interact with state agencies?

If you answered yes to any of the questions above – COMLINC is a solution that will work for you!

Current Projects

- Region 1 - $1.5 Million for COMLINC pilot for 14 localities
- Region 3 – Lynchburg awarded $1.4 Million
- Region 6 – Roanoke awarded $866,570
- Local Interoperability Grants – Amelia and Nottoway Counties will join Region 1 implementing Motobridge

Commonwealth's Link to Interoperable Communication (COMLINC)



Current Projects

- Lynchburg/Roanoke joint RFP with a possible statewide option for the chosen vendor
  - Additional solution on state contract
  - Lower cost per system

COMLINC

The following fourteen localities are operational in Region One as a Pilot.

- Caroline
- Charles City
- Chesterfield County
- Essex
- Goochland
- Hanover
- Henrico
- King George
- Lancaster
- New Kent
- Northumberland
- Powhatan
- Richmond County
- Westmoreland

The Region One Pilot has formed a Policy and Procedures Committee.

Costs

- Initial one-time equipment purchase
  - Motobridge is currently $75K on state contract
  - RFP process will determine recommended solutions
- On-going leased line charges
  - VBR ATM lines are recommended: approximate cost $7,200 per year
  - MPLS should decrease this cost when implemented
- Training, Technical Support and Maintenance

Overcoming Challenges

- Development of MPLS is underway
  - Leased lines costs will decrease considerably
  - Available in one to two years
  - Will provide a guaranteed quality of service (QOS)
- Core infrastructure already funded through VITA/Northrop Grumman Partnership

Benefits

- Cost Effectiveness
  - Easier to manage provisioning and changes
  - Cheaper and more reliable access and backbone architecture
- Increased Reliability
  - Dynamic network resiliency
  - Increase reliability of the backbone and access technology
- Increased Security
  - Dual Internet ports with Firewalls, IDS, and IPS centrally managed
  - Separation of Internet and Intranet traffic

Benefits

- Increased Scalability
  - OC-48c/OC-192c(as needed) trunks & higher capacity switching
  - More scalable access technologies supported
- Flexibility
  - Easier to provision/manage VPNs and QOS
  - Ability to use almost any access technology
  - Extended managed services with flexible flat rate pricing
  - Additional service offerings available as value-adds

COMLINC

QUESTIONS?

Thank you

Steve Marzolf: Steve.Marzolf@vita.virginia.gov

Capt. Michael Bolton: Michael.Bolton@vsp.virginia.gov

Chris Essid: Chris.Essid@governor.virginia.gov